California State Journal of Medicine

OWNED AND PUBLISHED MONTHLY BY THE CALIFORNIA MEDICAL ASSOCIATION

BALBOA BUILDING, SECOND AND MARKET STREETS, SAN FRANCISCO

Editor - - - - - - - - - W. E. MUSGRAVE, M. D.
Secretary - - - - - - - - EMMA W. POPE, M. D.
Superintendent of Publications - - - - - WILLIAM H. BARRY

VOL. XXII JANUARY, 1924 No. 1

ORIGINAL ARTICLES

RESPONSIBILITY FOR STATEMENTS AND CONCLUSIONS IN ORIGINAL ARTICLES

The author of an article appearing in the JOURNAL *is entirely responsible for all statements and conclusions. These may or may not be in harmony with the views of the editorial staff. Furthermore, authors are largely responsible for the language and method of presenting their subjects. All manuscripts will be carefully read, but editorial privileges will be exercised only to a very limited extent. It is believed that the manner of presentation of any subject by any author determines to no small degree the value of his conclusions. Therefore, both the author and the reader, in our opinion, are entitled to have the subject as presented by the author as little disturbed as possible by the editors. However, the right to reduce or reject any article is always reserved.*

ERYTHEMA INDURATUM*

(Report of a case treated with tuberculin and the Kromayer Lamp.)

By H. E. ALDERSON, M. D. and H. C. COE, M. D.
(From the skin clinic, Stanford University Medical School, San Francisco.)

This case of erythema induratum is reported because of the good results obtained in treatment with tuberculin and ultraviolet light.

The patient, an American schoolgirl, referred by P. H. Pierson, complained of ulcers on both legs of two months' duration. The lesions had first appeared as nodules in the skin, which were neither painful nor tender. These nodules gradually broke down, leaving indolent ulcers characteristic of the disease.

The family history disclosed the fact that the father had had similar ulcers on his legs thirty years ago. There was no history of syphilis or tuberculosis in the family. The patient had never been in contact with tuberculosis, as far as she knew. There was nothing in the patient's past history which could influence her present illness.

Physical examination showed a well-developed, very well nourished young woman 16 years of age. The pulse and temperature were normal. The thyroid gland was slightly enlarged, but there were no signs of toxicity. In the right anterior cervical region there was an enlarged lymph gland, about 1 cm. in diameter. It was firm and not adherent to surrounding structures. The tonsillar fossae were clean. Tonsillectomy had been thoroughly done nine years prior to examination. The heart and circulation were normal. There was some harshness to the breath sounds at both hilus regions; otherwise, the lungs were negative and the abdomen and extremities presented nothing abnormal excepting the leg ulcers.

The ulcers were situated on the lower third of both legs. There were four on the left leg (two on the anterior surface, one on the medial aspect, and another on the posterior surface). There was one ulcer on the anterior surface of the right leg. They were irregularly annular in shape, and about 4 cm. in diameter. The ulcers were fairly deep, the edges somewhat raised and crusted, but fairly clean-cut. The bases were covered with a serosanguineous exudate and some necrotic tissue. They were not tender nor acutely inflamed.

Laboratory examinations showed a normal blood count and a negative urine. The Wassermann test was negative in two laboratories. Smears were made from the edges of the ulcers and stained for tubercle bacilli, but none were found.

X-ray plates of the chest showed calcified glands at each hilus and a pleural scar across the apex. This, with the enlarged cervical gland pointed toward past tuberculosis.

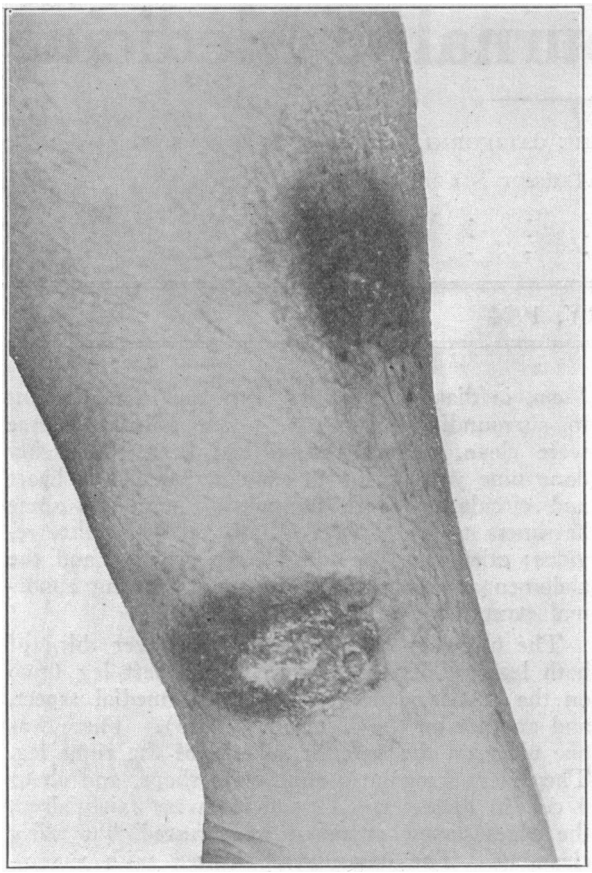
The history and appearance of the lesions established the diagnosis of erythema induratum (Bazin). The patient was given a course of tuberculin injections as outlined below by P. H. Pierson, and we administered the Kromayer lamp treatment.

Tuberculin O. T. was given in increasing doses, the dosage being regulated according to local and focal reactions and the patient's temperature. The dosage varied from .001 mgms. to .02 mgms. The smaller doses were given three times a week and the larger ones twice a week.

The Kromayer lamp was applied twice a week without lens, the window of the lamp being held as closely as possible to the ulcer without actual contact. The exposure was for 15 seconds.

About two weeks after beginning treatment a focal reaction was noticed about the ulcers. They became larger and were surrounded by a zone of hyperemia. The patient said the lesions were painful and they were tender to touch. A month later the edges of the ulcers were clean and smooth, healthy granulations covered the bases, and epithelium began to grow in from the edges. In four months the lesions were completely healed. The

* Read before Section on Dermatology at the State meeting, at San Francisco, June 22, 1923.



patient was last seen a few days before reading this paper, four months after the ulcers healed. She has no new lesions and the smooth purplish scars, the remains of the ulcers, are beginning to fade.

A survey of the literature shows that tuberculin has been successfully used by others in the treatment of erythema induratum. In 1909 Clark reported on the therapeutic value of tuberculin in this disease. Fordyce in 1911 reported improvement in a case thus treated, and MacKee in 1913 reported the cure of a case. The Kroymayer lamp as a local application has also given therapeutic results. Recently, Oliver reports cures in five cases of non-ulcerated erythema induratum by the application of the lamp with pressure over the nodules for a one-minute exposure.

SUMMARY

Ulcers on the legs of a young woman were diagnosed as lesions of erythema induratum. The patient was treated with tuberculin and the lesions with ultraviolet light by the means of the Kromayer lamp. Lesions were completely healed in four months. They have remained healed and there have been no new lesions.

240 Stockton St.

DISCUSSION

Edward D. Lovejoy, Brockman Building, Los Angeles—The paper of Alderson and Coe is a valuable contribution, in that they have added to our knowledge of treatment and results of treatment. It is only by collecting such data that we can come to a just evaluation of the methods at our command in the care of dermatological diseases. Far too many reports are wasted because we do not consider a single case or small group of cases of sufficient value to publish, but in the present instance this report added to the previous ones by Clark, Fordyce, Mackee, and Oliver makes an increasing collection from which valuable facts may be later deducted.

Erythema induratum has always been difficult to bring to an ultimate cure, relapses being of frequent occurrence even with the use of tuberculin combined with the local dressings and cleansing of the ulcers which we have previously employed, but the report of Alderson and Coe makes us hopeful that the combination of treatment here employed may serve to destroy the cause and prevent recurrence.

In regard to the case itself, the author leaves us a little in doubt as to whether he considers the focal reaction due to the tuberculin injection or the Kromayer lamp, and also if any change was made in the treatment or frequency of the treatment following the appearance of the reaction.

John C. Yates, Watts Building, San Diego—I wish to acknowledge, in the discussion of paper by Alderson and Coe, of a case of erythema induratum. It is rather difficult to know where to start, as they give us very little to start upon. I appreciate very much the report of one case, as it brings us into more intimate contact with the patient than where the statistics are given of one hundred cases, or perhaps more. I have never been satisfied from my contact with the various writers on this subject, that all are agreed as to its being a tubercular condition, primarily; that is, the patient is usually one having poor circulation in extremities, and the condition existing is a phlebitis, with choking of lumen of vessels by leucocytes, and tuberculosis bacilli are seldom found, although patient usually is suffering with, or has healed lesion of tuberculosis, probably from the predisposing cause, therefore giving one several possible foci of tuberculosis infection.

The laboratory findings in this case showed nothing in particular, outside of some probably healed lesions in apices; however, we will take Alderson's and Coe's diagnosis for granted.

This brings us to treatment administered, which consists of two parts—that of tuberculin internally, and light externally, the description of which is rather vague, in that the authors state the dosage was "regulated according to local and focal reaction, and the patient's temperature," and then apparently "the smaller doses were given, three times a week, and larger ones twice a week."

The treatment of erythema induratum has been conducted for several years by use of tuberculin, together with the usual care of tubercular patients, with more or less fair results; also it must be noted many of these cases tend to spontaneous recovery, at least for the time being; therefore, it comes to the consideration in the treatment of this case of the use of the violet ray as an adjunct, administered through use of the Kromayer lamp, exposure, without lens, for fifteen seconds twice weekly. The author speaks of a focal reaction occurring after two weeks, but does not specify any difference as to this reaction and what might have been from his focal reaction of tuberculin, and although you might get a reaction from Kromayer in ulcerations of any character, and by hyperemia disseminate the leucocytes, I do not feel that the exposures were of long enough duration to do this in an encrusted ulcer with a serosanguineous exudate of any amount, which must have occurred with necrotic tissue. The only question that now remains, can erythema induratum be cleared with ultra violet rays alone, or must we use tuberculin in conjunction?

Philip H. Pierson, 516 Sutter Street, San Francisco—A question was raised in regard to whether this was definitely tuberculous disease and to what has been said in regard to the existing cervical gland, scars at both hiluses and across the apices, the rather destructive type of leg ulcers. I might

add that there was a definite focal reaction in the ulcers, more redness, pain and induration following the injection of one mgr. tuberculin used for diagnostic purposes before the treatment was started.

The question has also been raised as to whether the ultra violet lamp alone would suffice in treating such a tuberculous manifestation, and to this I would say, probably not. And my reason for saying so is that you cannot treat a generalized infection with perhaps only a few superficial manifestations by local treatment only. General regulation of life, habits, diet, rest, etc., is extremely important. Also the effect of the tuberculin on the specific resistance is a great factor in preventing recurrences. I do not deprecate in the least the added help of the lamp in hastening the effect of tuberculin and general hygiene, but I feel that all should be carried out rigidly if we are to be successful both for the present and the future.

Dr. Alderson (closing) — In reply to Lovejoy's discussion we can state that months have elapsed, and the patient who has been reporting at intervals remains perfectly well. She has become a professional dancer, and is quite successful in her work. We expect to keep her under observation for several years before pronouncing her permanently cured. The focal reaction referred to was due to the tuberculin injection which phenomenon offers additional diagnostic evidence asked for by Yates. The tuberculin injections at this stage were temporarily interrupted, but the Kromayer lamp treatments were continued. Pierson has already discussed his part of the treatment. Yates' remarks regarding the sufficiency of the ultraviolet-ray exposure would be justified if the ulcers at the time of treatment were covered with crusts, but the treated surfaces were cleaned, leaving an unobstructed field for the light rays. It is now generally accepted that erythema induratum is due to the tubercle bacillus. In our opinion, a favorable result would have been observed in time from the ultraviolet light alone, but combination with the tuberculin injections brought about involution of the lesions in much less time than otherwise would have been the case.

Harry C. Coe (closing)—I believe that the questions asked by both Lovejoy and Yates have been answered by Pierson and Alderson. I might add that in the paper we referred to E. L. Oliver's recent report of cure by the use of Kromayer lamp alone in case of erythema induratum. This would answer Yates' question on that point.

Professional Pirates—Under this heading, the Financial Times, San Francisco, October 13, 1923, publishes the following editorial: "Next Wednesday (providing there is no golf match on) the State Board of Medical Examiners will summon thirteen physicians to appear and show cause why they should not be deprived of their right to practice medicine in California. Mind you, thirteen in our own State—twelve charged with performing illegal operations, and one for violation of the poison act. Very Pretty! In the mind of the editor, the three greatest professions in the world are law, the church, and medicine. A chief justice should advocate and protect the citizens with law and order. The ecclesiastic is given the rare privilege of teaching the doctrines of Christ and cementing love and tolerance. The physician, honored by degrees, should respect the humanitarian and skillful knowledge he possesses. Bringing children into the world and nursing and treating both young and old alike, when in ill health, are all a part of his duties. These three professions should be a firm foundation for all times. Should be! Now, what do we discover? The foundation is cracked and is leaky. Worms of distrust and selfish gain are eating into the concrete pillars. No penalty is too severe for this ilk. Those noble medicos, who will undoubtedly suffer through this blight brought on their profession by their so-called colleagues, should be vindicated swiftly and surely for all times.

THE TREATMENT OF ACUTE OSTEOMYELITIS*

By A. J. OCHSNER, M. D., Chicago

In discussing this subject it is of the greatest importance to direct attention to the fact that harm comes to patients suffering from acute osteomyelitis as a rule, because of the fact that the diagnosis is not made until great destruction has been done from advancement of the disease, which could have been prevented with the greatest ease had an early diagnosis been made, and to point out the reasons why the diagnosis is not made early, and to supply the remedy for this error.

In order to clearly understand the history and progress of the disease one must bear in mind the structures involved in this infection, which enters the bone through the nutrient artery and progresses through the peculiar circulatory system present in the bone. Taking as an example one of the long bones, we have in the center the medulary cavity, which is especially rich in blood vessels through which the infection can progress readily if no outlet is provided to the external surface of the extremity involved. From this cavity the vessels extend into the hard portion of the bone through the Haversian canals, which communicate in turn through the tiny canaliculi with the lacunae, and ultimately with the periosteum. The latter structure is thick and hard and difficult to perforate, consequently the infection is confined within this dense covering and backs up into adjoining portions of the marrow until ultimately the entire shaft may be involved.

On the other hand, if an exit is provided by an incision down to the bone through the periosteum, the lymph stream immediately begins to carry the infectious material away from the original location. The pressure is relieved at once, and the pain subsides immediately and the infection ceases to progress, so that there is no danger of further involvement of bone which had previously remained free from infection.

Occasionally, the primary point of infection is located immediately underneath the periosteum; especially is this true in cases in which there has been a contusion of the periosteum. In these cases an incision through the periosteum down to the bone will result in complete, permanent relief without any involvement of the bone proper. On the other hand, if this treatment is not instituted early the infection may destroy a portion of the bone before relief comes from perforation of the periosteum by pressure necroses and evacuation of the pus through an abscess in the soft tissues overlying the periosteum.

In reviewing the histories of the cases which have come under my personal observation, I have found that an early diagnosis has been made only in those cases in which a careful physical examination had been made. The delayed diagnoses were due to the fact that the trouble was looked upon by the parents, or the family physician, or both, as a case of rheumatism or growing pains, the diagnosis having been based entirely upon the fact that

* Read at the Utah Medical Association's annual meeting, Salt Lake, June, 1923.